

Datasheet: MCA2113PET

BATCH NUMBER 159000

Description:	MOUSE ANTI HUMAN CD46:RPE
Specificity:	CD46
Other names:	MEMBRANE CO-FACTOR PROTEIN
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	MEM-258
Isotype:	IgG1
Quantity:	25 TESTS/0.25ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species	Human		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilised		
Reconstitution	Reconstitute with 0.25 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by affinity chromatography on Protein A		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1%	Bovine Serum Albumin	
	5%	Sucrose	

Immunogen HPB-ALL cell line.

External Database

Links

UniProt:

[P15529](#) [Related reagents](#)

Entrez Gene:

[4179](#) CD46 [Related reagents](#)

Synonyms

MCP, MIC10

RRID

AB_1102096

Specificity

Mouse anti Human CD46 antibody, clone MEM-258 recognizes the human CD46 cell surface antigen, also known as membrane co-factor protein (MCP), Trophoblast leukocyte common antigen or TLX. CD46 is a 392 amino acid (including a 34 aa signal peptide) ~43-60 kDa single pass type 1 transmembrane glycoprotein expressed by all cell types with the exception of erythrocytes.

CD46 functions as a receptor for complement and inhibitor of complement activation, limiting the formation and activity of C3 convertases. CD46 is expressed by all nucleated cells, often as multiple isoforms (Seya *et al.* 1993) on the same cells. The molecule is also expressed by sperm and may be important in the process of fertilisation (Carver-Ward *et al.* 1996).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ or 100ul whole blood.

References

1. Sirena D *et al.* (2004) The human membrane cofactor CD46 is a receptor for species B adenovirus serotype 3. [J Virol. 78 \(9\): 4454-62.](#)
2. Fremieux-Bacchi, V. *et al.* (2006) Genetic and functional analyses of membrane cofactor protein (CD46) mutations in atypical hemolytic uremic syndrome. [J Am Soc Nephrol. 17 \(7\): 2017-25.](#)
3. Fleischli, C. *et al.* (2005) The distal short consensus repeats 1 and 2 of the membrane cofactor protein CD46 and their distance from the cell membrane determine productive entry of species B adenovirus serotype 35. [J Virol. 79:10013-22.](#)
4. Sweigard, J.H. *et al.* (2010) Adenovirus vectors targeting distinct cell types in the retina. [Invest Ophthalmol Vis Sci. 51:2219-28.](#)
5. Yang, P. *et al.* (2009) Expression and modulation of RPE cell membrane complement regulatory proteins. [Invest Ophthalmol Vis Sci. 50: 3473-81.](#)
6. Bahat, A. and Eisenbach, M. (2010) Human sperm chemotaxis is mediated by phospholipase C and inositol trisphosphate receptor Ca²⁺ channel. [Biol Reprod. 82: 606-16.](#)
7. Bienaime, F. *et al.* (2010) Mutations in components of complement influence the outcome of Factor I-associated atypical hemolytic uremic syndrome. [Kidney Int. 77: 339-49.](#)
8. Wang, H. *et al.* (2008) *In vitro* and *in vivo* properties of adenovirus vectors with increased affinity to CD46. [J Virol. 82: 10567-79.](#)
9. Hara, H. *et al.* (2011) Initial *in vitro* investigation of the human immune response to

- corneal cells from genetically engineered pigs. [Invest Ophthalmol Vis Sci. 52: 5278-86.](#)
10. El Karoui, K. *et al.* (2012) A clinicopathologic study of thrombotic microangiopathy in IgA nephropathy. [J Am Soc Nephrol. 23 \(1\): 137-48.](#)
11. Bach, P. *et al.* (2013) Specific elimination of CD133+ tumor cells with targeted oncolytic measles virus. [Cancer Res. 73 \(2\): 865-74.](#)
12. Leaderer, D. *et al.* (2015) Adeno-associated virus mediated delivery of an engineered protein that combines the complement inhibitory properties of CD46, CD55 and CD59. [J Gene Med. 17 \(6-7\): 101-15.](#)
13. Tuve, S. *et al.* (2006) A new group B adenovirus receptor is expressed at high levels on human stem and tumor cells. [J Virol. 80 \(24\): 12109-20.](#)
14. Hara, H. *et al.* (2008) *In vitro* investigation of pig cells for resistance to human antibody-mediated rejection. [Transpl Int. 21 \(12\): 1163-74.](#)
15. Loré, K. *et al.* (2007) Myeloid and plasmacytoid dendritic cells are susceptible to recombinant adenovirus vectors and stimulate polyfunctional memory T cell responses. [J Immunol. 179 \(3\): 1721-9.](#)
16. Fremeaux-Bacchi, V. *et al.* (2007) Unusual clinical severity of complement membrane cofactor protein-associated hemolytic-uremic syndrome and uniparental isodisomy. [Am J Kidney Dis. 49 \(2\): 323-9.](#)
17. Le Quintrec, M. *et al.* (2008) Complement mutation-associated *de novo* thrombotic microangiopathy following kidney transplantation. [Am J Transplant. 8 \(8\): 1694-701.](#)
18. Boyer, O. *et al.* (2008) Complement factor H deficiency and posttransplantation glomerulonephritis with isolated C3 deposits. [Am J Kidney Dis. 51 \(4\): 671-7.](#)
19. Wang, H. *et al.* (2009) Receptor usage of a newly emergent adenovirus type 14. [Virology. 387 \(2\): 436-41.](#)
20. Iguchi, K. *et al.* (2012) Efficient antitumor effects of carrier cells loaded with a fiber-substituted conditionally replicating adenovirus on CAR-negative tumor cells. [Cancer Gene Ther. 19 \(2\): 118-25.](#)
21. Kälin, S. *et al.* (2010) Macropinocytotic uptake and infection of human epithelial cells with species B2 adenovirus type 35. [J Virol. 84 \(10\): 5336-50.](#)
22. Bottino, R. *et al.* (2014) Pig-to-monkey islet xenotransplantation using multi-transgenic pigs. [Am J Transplant. 14 \(10\): 2275-87.](#)
23. White, K.M. *et al.* (2013) Assessment of a novel, capsid-modified adenovirus with an improved vascular gene transfer profile. [J Cardiothorac Surg. 8: 183.](#)
24. Tuve, S. *et al.* (2008) Role of cellular heparan sulfate proteoglycans in infection of human adenovirus serotype 3 and 35. [PLoS Pathog. 4 \(10\): e1000189.](#)
25. Iwase, H. *et al.* (2014) Regulation of human platelet aggregation by genetically modified pig endothelial cells and thrombin inhibition. [Xenotransplantation. 21 \(1\): 72-83.](#)
26. Sweigard, J.H. *et al.* (2011) Adenovirus-mediated delivery of CD46 attenuates the alternative complement pathway on RPE: implications for age-related macular degeneration. [Gene Ther. 18 \(6\): 613-21.](#)

Storage

Prior to reconstitution store at +4°C.

After reconstitution store at +4°C.

DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #20487 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA2113PET>
20487

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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